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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,044	07/10/2001	Takeshi Nishiuchi	010883	6430

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EXAMINER

MORGAN, EILEEN P

ART UNIT PAPER NUMBER

3723

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/901,044

Applicant(s)

NISHIUCHI ET AL.

Examiner

Eileen P Morgan

Art Unit

3723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-26 and 28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-26 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2-21, 23-26, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP '536 in view of Pletscher-003.

JP '536 discloses a dry surface deposition apparatus comprising a plurality of mesh, porous barrels for accommodating a work piece, horizontally arranged, a surface treating material supply outside the barrels to allow material to into and out of porous barrels, wherein the barrels have a stop (intersections of barrel walls). JP'536 does not show the stops (intersecting walls) being between 30 and 100 degrees. However, Pletscher teaches a tumbling workpiece apparatus having stops or intersecting wall to be within this range (triangular barrel, Figs. 2 & 3). Therefore, to provide modify the barrel of JP '536 by having a barrel with less sides, thereby forming a stop that is between 30-100 degrees, as taught by Pletscher, would have been obvious at time invention was made to one of ordinary skill in the art in order to provide increased

tumbling of the workpieces since the workpieces would hit the stops more frequently. Claims 23-26 do not further limit the apparatus of claim 2.

In regard to claims 4-8, JP '536 does not show the tubular barrel being in the shape of a triangle, square or rhombus, or convex. However, to change the shape of the barrel would have been obvious to one of ordinary skill in the art at time invention was made in order to accommodate differently shaped workpieces and to produce various machining effects.

Un regard to claims 9-12, JP '536 does not disclose the barrels having protrusions as stops. However, Pletscher teaches dry surface treating apparatus having a tubular barrel having protrusions (stops) for treating workpieces. Therefore, to provide the barrel of JP '536 with stops, as taught by Pletscher, would have been obvious at time invention was made to one of ordinary skill in the art in order to provide increased tumbling of the workpieces.

In regard to claims 13-17, 28 to have more than one compartment in the barrel would have been obvious at time invention was made to one of ordinary skill in the art in order to individually treat a variety of workpieces simultaneously.

3. Claim 22 rejected under 35 U.S.C. 103(a) as being unpatentable over JP '536 in view of Pletscher, as applied above, and in further view of Kanouse - 5,782,677.

JP '536 does not disclose the barrel used as a blasting chamber. However, Kanouse teaches an apparatus having a tubular barrel for blast treating workpieces. Therefore, it would have been obvious at time invention was made to one of ordinary

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skill in the art to provide the apparatus of JP '536 with a blasting nozzle, as taught by Kanouse, in order to more thoroughly abrade workpieces.

Response to Arguments

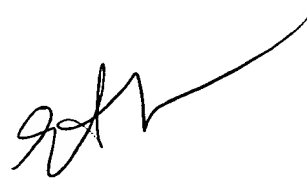
Applicant's arguments with respect to claims 2-26,28 have been considered but are moot in view of the new ground(s) of rejection.

In regard to Pletscher, this reference is relied upon to teach protrusions as stops. The material of the stops is irrelevant to the rejection, since the material is not a claimed limitation. This reference is analogous art and one would be motivated to put stops in the Japan barrel, regardless of material.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eileen P Morgan whose telephone number is 703.308.1743. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 703.308.2687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EM
December 13, 2004



EILEEN P. MORGAN
PRIMARY EXAMINER